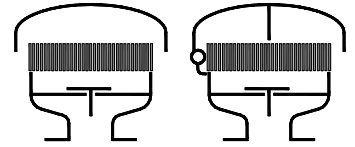


## Type sheet

Deflagration and endurance burning proof pressure relief valve

**KITO® DS/KS-IIA-...-A**

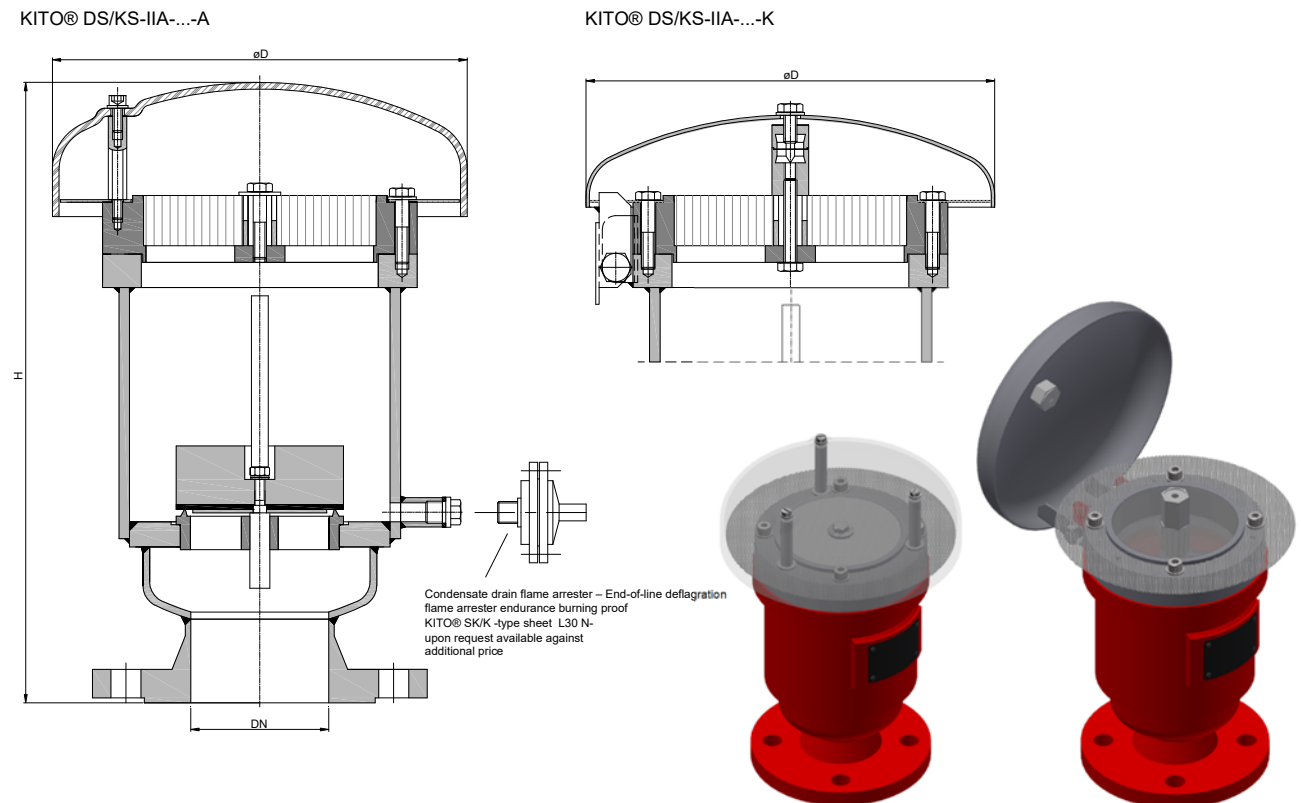
**KITO® DS/KS-IIA-...-K**



### Application

As venting device for installation on storage tanks incorporating an explosion and endurance burning flame arrester element and a PRV to allow for the passage of excess pressure but prevent or minimize the loss of gas/vapours depending on valve adjustment. Approved for all materials of the explosion group IIA with a maximum experimental safe gap (MESG) > 0.9 mm and an maximum operating temperature of 60 °C. Usually mounted on the top of the tank in conjunction with a vacuum relief valve (see KITO® VS/KS-IIB3-... (type sheet D 11 N)). An explosion proof condensate drain is also available for this model at extra cost.

### Dimensions (mm) and settings (mbar)



DN		D	H		~ kg	min. - max. (load weight from PE)	setting min. - max.	min. - max. (with housing extension)
DIN	ASME		DIN	ASME				
25 PN 40	1"	220	305	320	10	3.1 - 10.4	10.5 - 200	-
50 PN 16	2"		315	335	14	2 - 7.4	7.5 - 100	> 100 - 200
80 PN 16	3"	245	372	390	19	2 - 7.9	8 - 105	> 105 - 200
100 PN 16	4"		370	395	20	2 - 7.9	8 - 95	> 95 - 200

Indicated weights are understood without weight load and refer to the standard design

Attention !!! Dimension H for design with a weather hood from stainless steel 1.4571 ca. 10-15 mm lower

Higher settings see KITO® DS/KS-1-IIA-...-... (type sheet C 7.3 N)

### Example for order

**KITO® DS/KS-IIA-25-A**

(design with weather hood from PMMA and flange connection DN 25 PN 40)

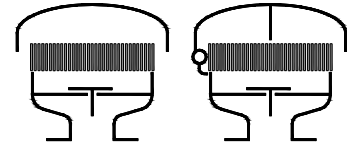
**Type examination certificate to EN ISO 16852 and CE-marking in accordance to ATEX-Directive 2014/34/EU**

## Type sheet

Deflagration and endurance burning proof pressure relief valve

**KITO® DS/KS-IIA-...-A**

**KITO® DS/KS-IIA-...-K**



### Design

	standard	optionally
housing	steel	stainless steel mat. no. 1.4571
valve seat, valve spindle	stainless steel mat. no. 1.4571	
load weight	stainless steel mat. no. 1.4571	PE
valve sealing	NBR	Viton, PTFE, EPDM, metal sealing
	<i>≥ 100 mbar only PTFE or metal sealing</i>	
KITO®-flame arrester element	completely interchangeable	
KITO®-casing / KITO®-grid	stainless steel mat. no. 1.4308 / 1.4310	stainless steel mat. no. 1.4408 / 1.4571
weather hood <b>KITO® DS/KS-IIA-...-A</b>	PMMA	
weather hood <b>KITO® DS/KS-IIA-...-K</b>	stainless steel mat. no. 1.4571, hood can fold automatically as a result of folding mechanism and fusing element	
protective screen	PA6	
flange connection	EN 1092-1 type B1	ASME B16.5 Class 150 RF

### Performance curves

Flow capacity  $V$  based on air of a density  $\rho = 1.29 \text{ kg/m}^3$  at  $T = 273 \text{ K}$  and atmospheric pressure  $p = 1.013 \text{ mbar}$ . For other gases the flow can be approximately calculated by

$$\dot{V}_{40\%} = \dot{V}_b \cdot \sqrt{\frac{\rho_b}{1.29}} \quad \text{or} \quad \dot{V}_b = \dot{V}_{40\%} \cdot \sqrt{\frac{1.29}{\rho_b}}$$

The indicated flow rates will be reached by an accumulation of 40% above valve's setting (see DIN 4119).  
If the allowable overpressure is less 40%, please consult der factory for the corrected volume flow.

